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ABSTRACT

The four papers in a symposium on the cost effectiveness of community schools are presented here, with a brief introduction. The first paper outlines the procedures necessary for an analysis of cost-effectiveness and identifies the problems in applying this analysis to community schools, including variable selection and measurement and value judgments. The second paper illustrates an analysis of cost-effectiveness of a single community school in Atlantic City, New Jersey. From data collected on the school's costs and services, the author concludes that this community school is relatively cost effective. In the third paper, the researcher applies a similar analysis to a regional community school in Maine and finds that cost effectiveness varies among programs in the school. The fourth paper discusses a statewide analysis of cost-effectiveness of all community schools in Texas. Its authors find that the amount of the schools' expenditures correlates positively with the number of their activities and that the state's community schools as a whole are cost effective. (Author/RW)

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COST EFFECTIVENESS AND THE COMMUNITY SCHOOL

PROCEEDINGS OF A SYMPOSIUM OF THE
AMERICAN EDUCATIONAL RESEARCH ASSOC.
ANNUAL MEETING APRIL 1981

SUSAN C. PADDOCK, CHAIR

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Introduction

This monograph is a collection of papers presented at the 1981 Annual Meeting of the American Educational Research Association in Los Angeles. The symposium which brought these papers together was developed to address a topic of growing interest: the measurement of costs in the community school, and the assessment of the relative cost effectiveness of community school programs. The symposium served only as an introduction to the field of cost effectiveness as applied to community education - as a means of whetting interest and encouraging others to become involved in this important area.

Cost effectiveness analysis, as Doughty points out, is a relative concept that requires comparisons. Implicit in the planning of cost effectiveness studies is the making of value judgments - and it is these judgments which may ultimately determine the studies' results. Keeping in mind this value orientation is important for those who conduct or use cost studies.

The examples of cost analyses reported by Herr, Wilson and Stenning/Cooper-Stenning are demonstrations of varying value orientations. They are also illustrations of studies conducted at local, regional and state levels. Hence, they demonstrate the variability and applicability of cost effectiveness analysis in community education.

These papers are but a beginning; it is hoped that this collection will inform and encourage others in carrying out their own cost analyses. The funds to print this monograph were provided by the C.S. Mott Foundation, and this support is indicative of the importance of cost effectiveness analysis to community education.

S. C. Paddock

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Community Education In Texas:
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and Peggy Cooper-Stenning

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for Community Education Development

108 Farmer Building
Arizona State University
Tempe, Arizona 85281
Phone (602) 965-6185

METHODS OF COST-EFFECTIVENESS ANALYSIS WITH IMPLICATIONS FOR COMMUNITY SCHOOLS

Philip Doughty
Syracuse University

Handouts to accompany an
American Education Research Association Symposium presentation

Los Angeles, California
1981

Introduction

Considerations of appropriate methods for use in planning, describing and evaluating community education programs are the focus of this first presentation in our symposium on the "Cost Effectiveness of the Community School." The title itself suggests a consideration of methods, as well as results. To someone with a professional fixation on cost-effectiveness methods in a variety of contexts, an initial conceptual issue or potential misperception is already evident. This relates to the properties of cost-effectiveness methodology. The symposium title can be construed to suggest that cost effectiveness is a concept with absolute properties - that is, community education or a community school is or is not cost effective. On the other hand, community education alternatives can be compared across several or many criteria and described or even judged on the basis of which alternative is more or less cost effective than the other(s). This, then, suggests that cost effectiveness is a relative concept that requires comparisons. This and other conceptual issues along with considerations of a general approach to cost-effectiveness analysis comprise the bulk of this presentation. At various points in the discussion of methods, comments about problems or potentials in the community education context will be addressed.

Outline of Issues to be Addressed

I. Multiple Perspectives on Assessment in Community Education
(Johnny Bench View of Productivity Assessment)

II. A General Approach to Planning, Describing and Assessing
(Assessment Options)

III. A General Model for Applying Education Program Cost Evaluation

IV. Who Pays? Who Benefits?

Resources	Benefits
Individuals	Individuals
Communities	Families
States	Local Community
Federal	Society
Private Sector	

V. Special Cost-Related Issues for Community Education

In a community education or community school context, there are four potential categories of financial cost information that should be considered. A decision on which of these perspectives is most appropriate depends upon a cost-effectiveness study's purpose. In a 1977 UNESCO report, Eicher described these categories in a study of alternative mediated delivery systems. Translated to the more general community education context, these four still apply and can be described as follows:

- Technical Cost Analysis - Costs are categorized and reported according to the various technical operations that have to occur in order to "deliver" community education.
- Economic Cost Analysis - Costs are reported according to fixed or variable expenditures which may or may not remain stable as a program expands dramatically.
- Accountancy - In this approach, expenditures are distinguished by allocating them to either capital investment or operations.
- Financial Cost Analysis - Classifications in this system are organized according to contributor (or who pays) and then reclassified as direct or indirect for each contributor.

Depending upon the purpose of and resources allocated to a study, several or perhaps all of these approaches may be appropriate since they allow essentially similar cost data to be viewed from markedly different perspectives.

The typical cost analysis in education, including recent examples in community education, often combines the accountancy and financial approaches where functional or program oriented costs are reported. Occasionally life-cycle costs are reported so that initial start-up costs can be

appropriately pro-rated over several years of operation. One common problem with these studies, however, is the unspecified mixing of various sources of revenue and/or attributing the results to one financial source.

One additional set of cost-related issues that appears to have particular relevance to planning and evaluation in community education relates to differences between cost transfer, cost savings and cost avoidance. Each can be used to explain potentially important options or results but is often combined inappropriately. These and other special issues merit brief discussion. They can be organized as follows:

A. Time Related Concepts

(1) Depreciation-Amortization-Obsolescence
(2) Uncertainty
(3) Historical (ex post facto) vs. Predictive Costing

B. Functional vs. Jurisdictional Costing

(1) Joint Costs
(2) Unit Costs

C. Cost Savings - Cost Avoidance - Cost Transfer/Shifting - Cost Reduction

D. Average vs. Incremental Costs

(1) Economy of Scale

E. Economic Costs - Negative Benefits - Benefits Lost - Opportunity Costs

F. Types of Costs

(1) Fixed
(2) Variable
(3) Sunk
(4) Incremental
(5) Marginal
(6) Recurring
(7) Nonrecurring

G. Cost Justification

Values, Resource Allocation, Worth, Utility

H. Cost Efficiency
   Unit Costs, Numbers Served, Economy of Scale Dilemma

I. Cost Effectiveness
   Optimum Mix of Resources, Strategies and Results

THE JOHNNY BENCH VIEW OF PRODUCTIVITY ASSESSMENT

ECONOMICS/SOCIAL ACCOUNTING

Cost Benefit
Cost Utility
Cost Efficiency

ACCOUNTING

Auditing
Cost Justification

INSTRUCTIONAL RESEARCH/DESIGN/DEVELOPMENT

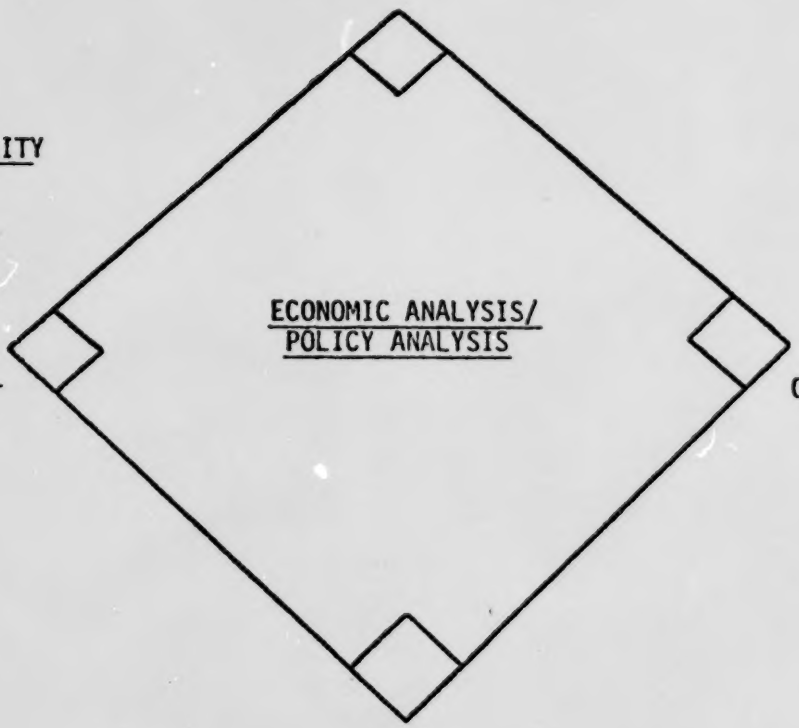
Organizational Development

OPERATIONS RESEARCH

COEA/CTEA
Value Engineering

MGT. ACCOUNTABILITY

PPB/PPBS



SYSTEM(S) ANALYSIS/ NEEDS ASSESSMENT

EVALUATION

Outcomes Analysis

COST-EFFECTIVENESS ANALYSIS/OPERATIONS AUDIT

Figure 1

ASSESSMENT OPTIONS

Approach	Considerations: MEANS-ENDS RELATIONSHIPS	Considerations: MEASURING/VALUING
BENEFIT / COST ANALYSIS	POTENTIAL FOR COMPARING MULTIPLE OR COMPETING GOALS	OUTCOMES VALUED IN MONETARY TERMS
COST-EFFECTIVENESS ANALYSIS (OPERATIONS AUDIT)	COMMON GOALS FOR ALTERNATIVES	OUTCOMES REPORTED IN MOST MEANINGFUL TERMS

Figure 2

A GENERAL MODEL FOR APPLYING EDUCATIONAL PROGRAM COST EVALUATION

Phase I: Prepare for the Study

Activities

-Form study team
-Identify the decision-makers and their information needs
-Determine study purposes
-Plan study management

Phase II: Identify Alternatives

Activities

-Identify system goal(s), purpose(s), or mission
-Consider any constraints or requirements for achieving the goal
-Identify a range of existing or potential alternatives
-Select the alternatives for study

Phase III: Design Study

Activities

-Define the criteria for the comparison
-Design analytical model

Phase IV: Determine Program Costs

Activities

-Specify cost model
-Collect cost information
-Adjust cost model

Phase V: Determine Program Outcomes

Activities

-Plan outcome study
-Collect outcome information
-Derive results

Phase VI: Assemble Findings

Activities

-Assemble cost and outcome information within analytical model
-Analyze information and prepare recommendations
-Consider uncertainties and test assumptions
-Prepare report

Figure 3

Some Concepts and Properties
Of the Methods of Cost-Effectiveness Analysis

Concept	Explanation	Properties		Examples
1.0 Occasions for Conducting Cost-Effectiveness Analyses	The decision to conduct a cost-effectiveness analysis may be made under several different circumstances. These circumstances differ in the degree to which cost-effectiveness analysis is viewed as a distinct form of inquiry providing a specific kind of information. (Discussed in Chapter Five, pp. 257-261, 271-274)	1.1	Decision situation requires cost-effectiveness information	Carpenter et al. (1970)
		1.2	Conditions suit the conduct of this form of inquiry	Kazanowski (1968a) Temkin (1970)
		1.3	Utility of findings from an investigation of outcomes would be improved by considering costs as well	Kraft (1974) Levin (1975)
2.0 Types of Alternatives Subject to Cost-Effectiveness Analysis	Three types of alternatives have been identified. Each type represents a specific dimension on which alternatives may differ. (Discussed in Chapter Five, pp. 261-265, 274-277)	2.1	Alternatives differing in the degree or kind of approach taken to a goal	Degree: Gailitis (1972) Kind: Mayo et al. (1973)
		2.2	Competitive or non-competitive alternatives	Carpenter et al. (1970)
		2.3	Alternatives differing in their temporal relationship to the study - past, present, or future	Doughty (1972)
3.0 Manner of Identifying Alternatives	Three different means of establishing alternatives have been identified. These means differ in terms of the information source used. (Discussed in Chapter Five, pp. 261-265, 277-278)	3.1	Utilizing existing approaches	Enos (1976)
		3.2	Considering the decision situation	Carpenter et al. (1970)
		3.3	Inventing alternatives	Lent (1976)

from Lent, 1980

Concept	Explanation	Properties	Examples
4.0 Potential Beginning Activities for a Cost-Effectiveness Analysis	Six types of activities addressing different prerequisite decisions for designing a cost-effectiveness analysis were identified. Few studies consider all six types. Weaknesses in some studies' outcomes appear correlated with failure to complete one of these activities. (Discussed in Chapter Five, pp. 258-271, 280-285)	4.1 Moving from the basis for a study to define its purpose	Carpenter et al. (1970)
		4.2 Identifying decision-makers and/or audiences for study	Doughty (1972)
		4.3 Defining the goals of the system under study	Lent (1976)
		4.4 Setting performance requirements	Lent (1976)
		4.5 Identifying alternatives	Carpenter et al. (1970)
		4.6 Defining the nature of the inquiry	
		-Defining CE decision model	Lent (1976)
		-Establishing hypotheses	Baley (1973)
		-Choosing fixed or variable cost or effectiveness comparison	Doughty (1972) Morris (1974)
		-Treating cost-effectiveness as fixed or relative property	Baley (1973) Carpenter et al. (1970)
5.0 Conceptual Frame of Cost-Effectiveness Studies	A number of different frames were identified. Frames differ in terms of the kind of logical structure they provide for design decisions and other methodological activities. Inconsistent use of a frame may produce illogical outcomes. (Discussed in Chapter Five, pp. 287-288, 295-301)	5.1 Evaluation	Lent (1976)
		5.2 Research	Sweigert (1970)
		5.3 Analysis	Gailitis (1972)
		5.4 Combinations of evaluation, research and analysis	Carpenter et al. (1970) Doughty, (1972)

Concept	Explanation	Properties	Examples
6.0 Treatment of Criteria	The use of criteria was generally not given much attention in most of the cases. Further attention could have been given to at least three aspects of their role within cost-effectiveness analyses. (Discussed in Chapter Five, pp. 288-292, 301-306)	6.1 Types - cost, effectiveness, and others	Carpenter et al. (1970) Doughty (1972)
		6.2 Manner of selection	Lent (1976)
		6.3 As a concept distinct from standards, indicators and decision models	Enos (1976, as a negative example)
7.0 Structuring Comparisons	Depending on the circumstances surrounding the selected alternatives, various steps have to be taken in order to gather information about the alternatives' performances under realistic and unbiased conditions. Nature and complexity of this design activity varies according to the relationship of the alternatives to the time of the study. (Discussed in Chapter Five, pp. 292-295, 306)	7.1 Ex post facto comparisons	
		-Alternative(s) existing at the time of the study	Mayo et al. (1973)
		-Alternative(s) existing in the past	Doughty (1972)
		7.2 A priori comparisons	Carpenter et al. (1970)
8.0 Factors Affecting the Appropriate Use of Decision Models	The match between the type of decision model and the purpose or subject of the study, and the internal composition of the model itself affects the extent to which the decision model is likely to represent a relevant conclusion to the analysis. (Discussed in Chapter Five, pp. 317-337)	8.1 Utility for decision-making	Carpenter et al. (1970) Enos (1976, as a negative example)
		8.2 Additivity	
		-Of cost and effectiveness	Enos (1976) as a negative example)
		-Of performance criteria	Doughty (1972) as negative example)
		8.3 Congruence of model to subject	Baley (1973 as a negative example) Doughty (1972)

from Lent, 1980

SELECTED (and BIASED) REFERENCES ON COST EFFECTIVENESS

1. Doughty, P., Lent, R. and Beilby, A. Cost Effectiveness Analysis and Instructional Technology, an ERIC Information Analysis Product, ERIC Clearinghouse on Information Resources, 1978.

2. A Four-Part Series on Cost Effectiveness:

   a. Doughty, P. Cost-Effectiveness Analysis Tradeoffs and Pitfalls for Planning and Evaluating Instructional Programs, Journal of Instructional Development, 1979, Vol. 2, No. 4, 17, 23-25.

   b. Beilby, A. Determining Instructional Costs through Functional Cost Analysis, Journal of Instructional Development, 1979, Vol. 3, No. 2, 29-34.

   c. Lent, R. A Model for Applying Cost-Effectiveness Analysis to Decisions Involving the Use of Instructional Technology, Journal of Instructional Development, 1979, Vol. 3, No. 1, 26-33.

   d. Klein, J. and Doughty, P. Cost-Effectiveness Evaluation: A Case Study of an Innovative Program in Higher Education, Journal of Instructional Development, 1980, Vol. 3, No. 3, 19-24.

3. Lent, R. An Examination of the Methods of Cost Effectiveness Analysis As Applied to Instructional Technology, unpublished doctoral dissertation, Syracuse University, 1980.

COST ANALYSIS OF A COMMUNITY SCHOOL:

THE WEST SIDE COMPLEX, ATLANTIC CITY

Audrey Herr, Ph. D.

New Jersey State Department of Education

Paper presented at AERA Annual Conference

Los Angeles, California

April 1981

INTRODUCTION

The New Jersey Laws of 1978, Chapter 74, appropriated almost seven (7) million dollars, of a total one (1) hundred million dollars, for the construction and/or renovation of community schools. Subsequently, the State Department of Education (SDE) developed a "Plan of Action" to facilitate the expansion of community education programs. This study was conducted at the request of the Governor's Office, as part of the SDE effort. The goal was to obtain information regarding the cost benefits of a community school by looking at various component costs and other select aspects of a successful community school.

Purpose:

The West Side Complex (WSC) in Atlantic City is an outstanding example of a functioning community school which provides educational and community services in one facility. It has received much attention throughout the state due to the wide range of services offered, extensive community utilization, and interagency co-sponsoring of the facility and programs. Consequently, there was a tremendous amount of interest generated in the Complex. Many questions were asked: How much money did it cost to operate the Complex? What did each agency contribute? What was the source of their funding? What services did each agency provide? How many people were reached? How did the cost of providing these services at West Side Complex compare to the costs of providing them elsewhere? Would community participation be different if services were provided at a different location? Thus, a cost-benefit study was initiated which planned to find out the actual costs of the program, the

real and in-kind contribution of each participating agency, how these monies were obtained, and what services were provided to whom. Was the program cost-effective, or could these services have been provided elsewhere at a lesser cost to the same, or greater numbers of people.

After preliminary contacts and inquiries were made with key personnel, the limitations of the available data necessitated modification in the focus of the study to a cost-analysis of the Community Services segment of the programs at the West Side Complex.[1]

METHODOLOGY

1. A questionnaire[2] to obtain the needed information was adapted from an evaluation of Community Education in Texas.[3]

2. Appointments for interviews were made with the key staff at West Side Complex and the co-sponsoring agencies. The purpose of the study was discussed fully. The questionnaire was to be completed prior to the meeting and returned to the interviewer.

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[1] The Board of Education reported that the educational component of WSC had had the same per pupil expenditures as the other elementary schools in Atlantic City.

[2] The questionnaire is included in Appendix A.

[3] Stenning, W.F. and Burridge, R. Community Education in Texas: A Technical Report of Participants, Programs and Costs. Texas Education Agency, Division of Adult Education, Austin, 1978.

3. Questionnaires were mailed with a cover letter indicating the purpose of the study to contact persons.[4]

4. Twenty-nine (29) agencies who utilized the West Side Complex facilities during the period covered by the study (FY 1977-78) were identified by WSC staff.

5. A questionnaire was mailed to each of the 29 agencies. After the due date, follow-up letters were sent to the non-respondents.

Data Collection

A. Interviews

During a series of six (6) individual meetings with key personnel in each of the constituent components of the program, data were obtained regarding the basic units involved in the operations of the WSC: (1) The Atlantic City Board of Education, (2) Administrators and Supervisors at the WSC, (3) The Atlantic Human Resources Agency (AHR), (4) The City of Atlantic City Health Department, and (5) The Recreation Department of the City of Atlantic City Department of Parks and Public Property.

The questionnaires which had been sent to each person in advance of the scheduled meetings were discussed and amplified. Due to the fact that the WSC represented only a portion of the services provided by each of the partici-

[4]The cover letters are included in Appendix A.

pating agencies, there was difficulty in deriving precise figures for all of the issues raised by all but one of the provider sources. Nevertheless, most of the respondents agreed that the figures they provided were fairly reliable estimates, which could be substantiated if necessary by an expensive, time consuming process of assigning staff personnel to research and document each area questioned.

B. Community Agency Surveys

Questionnaires were mailed to all 29 agencies identified as having used the WSC facilities. A total of 9 agencies responded. Of these, 80 percent provided some data; 6 agencies wrote letters indicating the nature and frequency of use of the WSC facility and 3 agencies completed the questionnaire in a somewhat sketchy manner.

Findings

A. Community Services

There were four major categories of services and/or activities offered at WSC:

(1) Health Services. These were provided by two funding sources, the Department of Health of the City of Atlantic City and Atlantic Human Resources. The services provided included: a pre-natal clinic, a well-baby (Pediatric) clinic, an adolescent medicine clinic, the

Adult Health Clinic, a Dental Clinic and a Medical Laboratory, which analyzed blood for evidence of problems such as diabetes, lead poisoning and sickle cell anemia.

(2) Social Services. These activities were all funded through AHR. The programs offered included: social work counseling, referral and follow-up; specialized youth services for adolescent development, employment counseling and training; nutritional aid, home improvement, energy relief and senior citizen activities.

(3) Recreation. The Recreation Department of the City of Atlantic City provided and organized the after-school program. Swimming for different age groups was offered Monday through Friday from 4 P.M. to 7 P.M. Participants were bussed there by the Recreation Department from seven (7) other after-school centers not having a pool. The pool was open weekends for Swim Meets and Family Swims. Other activities offered were: roller skating, basketball, slimnastics, gym play, and Friday Night Disco.

(4) Fund Raising. This category refers to events held for which there was an admission charge which was a contribution to a sponsoring organization. Examples of such activities were plays, recitals, basketball games, boxing matches, concerts, etc. Community agencies and groups also used the facility for meetings, programs, training activities (Police and Fire Department), and Armed Service Recruitment activities.

Table 1 represents an estimate, based on available data, of community utilization of the various services and activities offered at WSC during FY 1977-78. Clearly the Recreational Program had the greatest number of participants. This was to be expected due to the group nature of the activities and the extensive opportunities for participation. In fact, attendance in the other programs were proportionate to the duration of available services.

B. Cost Analysis

By examining Table 2 it was determined that the overall dollar expenditures for all community service was $310, 265, and was almost equally contributed by the three funding sources: 33% by Board of Education, 34% by Atlantic Human Resources, and 33% by the City of Atlantic City (Recreation Department 5%, and 28% by the Department of Health).

It should be noted that the Board of Education's budget for Community Services included salaries (coordinator, custodian and instructional) and expenses (utilities) for both recreational and civic activities. In determining the inkind contributions to AHR and Department of Health the total number of square feet used was multiplied by $7 per square foot. The inkind services provided to the Recreation Department were estimated as one third of sites utility expenditures. These inkind services estimates were used solely for the purpose of grant procurement by each of the participating agencies, they did not represent actual operations costs.

TABLE 1

Programs Offered and Participant Contacts
by Age for West Side Complex During FY 1977-78

Name of Program	Total[b]	0-5	A 5-12	G E 13-17	S[a] 18-60	60+
Atlantic Human Resources						
1. Social Work Service	1,579					
2. Health (dental, etc.)	1,050			(14-21)		
3. Youth Development	619			619		
4. Employment	93					
5. Summer Day Camp	150		150			
6. Transportation	509					
7. Community Action Council	165					
8. Neighborhood Coordinated Outreach Programs	3,639					
9. Head Start	90	90				
Totals	7,894	90	150	619		
Department of Health - City of Atlantic City						
1. Pediatric Clinic	1,046	1,046				
2. Adult Health Clinic	540				540 (ages 45-80)	
3. Laboratory	1,700	1,200				500
Totals	3,286	2,246			540	500
Recreation Department - Dept. of Park & Public Property (City of Atlantic City)			(Daily Monday-Friday) 4-6PM	6-8PM	8-10PM	
1. Swimming	63,735	2,400	32,625	20,880	7,830	
2. Gymnasium	50,895		6,525	39,150	5,220	
3. Roller Skating	76,995		20,880	23,490	32,625	
4. Biddy Basketball (Sat.)	11,960		3,120	8,840		
5. All Purpose Room	10,440			10,440		
6. Weight Room	13,572		5,742	7,830		
7. Slimnastics	6,525				6,525	
Totals	234,122	2,400	68,892	110,630	52,200	
Total Participants in All Programs	245,302					
Fund Raising Activities[c] (Plays, Recitals, Boxing etc.)	33,624					
GRAND TOTALS[d]	278,926	4,736	69,202	111,249	52,740	500

[a] Age data were not supplied by all programs.
[b] Wherever data were not available for entire year extrapolations were obtained.
[c] Not all organizations reported full attendance at these activities.
[d] This does not include attendance at any meetings conducted by community agencies or groups.

TABLE 2

Amounts and Sources of Funding for West Side Complex Community Service Programs During FY 1977-1978

Hard Dollars:	Atlantic City Board of Education (Community Services)	Atlantic Human Resources	City of Atlantic City Recreation Dept.	City of Atlantic City Dept. of Health	TOTAL
School Budget	$101,016				$101,016
Local Government		15,500	9,785	54,023	79,308
State Grant					
Federal Grant		81,182	4,680	33,539[a]	119,401
Other		Medicaid/Fees 10,540			10,540
Hard Dollars Sub-Total	$101,016[b]	$107,222	$14,465	$87,562	$310,265[c]
Inkind Services:					
Atlantic City Board of Education		141,838	175,980	5,600	339,168
Local Government	15,750[d]				
State Grant					
Federal Grant					
Other					
Inkind Services Sub-Total	15,750	141,838	175,980	5,600	339,168
TOTAL	$116,766	$249,060	$190,445	$93,162	$649,433

[a] This amount includes $30,960 WIC funds for food vouchers.

[b] The Board of Education Received $1,930 as rental fees ($150/night) from West Side Complex. These funds are entered as Miscellaneous Receipts on their total budget.

[c] This total does not represent monies collected from community sources directly by West Side Complex for incidental operating expenses. (No estimates of amounts involved were available.)

[d] Department of Recreation transports 160 students to West Side Complex for swimming instruction during 9-3 (school day). Figure derived by using minimum cost of a bus and driver ($75) for one day.

Table 3 was developed by combining the data from Tables 1 and 2. Considering the variety and scope of the services offered the cost of $1.26 per person contact is minimal. Even more impressive is the extremely low cost of 6 cents for each person contact in actual dollars expended for the recreation program and 81 cents per contact based on total costs. There was still another way to derive this particular cost. Being that the program was primarily conducted after-school hours the Board of Education's real contribution was identified by an analysis of their budget to $85,436,75. That amount combined with the Recreation Department's budget of $14,465 yielded a total of $99,901.75 actually spent for the program and a per contact cost of 43 cents.

The per contact costs of the Health Department program and that of AHR were much closer when adjustments were made for the WIC grant ($30,960) as these funds were in the form of food vouchers and were not actual dollar expenditures. Hence, the per contact cost for the Health Department program was $17.23 based on hard dollar expenditures and $18.93 based on total costs. It should be noted that both of these agencies provided services by qualified professional staff.

C. Comparative Costs and Outreach

The questionnaire requested information as to the real, or estimated, costs of providing the same program at a different site and the number of participants who were, or would have been reached at the other site.

TABLE 3

Cost Analysis Per Participant Contact by Program for
West Side Complex During FY 1977-78

Name of Program Sponsoring Agency	Number of Participants Contacts	Program Expenditures (Hard Dollars)	Cost Per Participant Contact (based on Hard Dollar Expenditures)	Total Cost of Program (Hard Dollars & Inkind Services)	Cost Per Participant Contact (based on Expenditures & Inkind Services)
Recreation Department	234,122	$14,465	$ .06	$190,445	$ .81
Atlantic Human Resources	7,894	$107,222	$13.58	$249,060	$31.55
Department of Health	3,286	$87,562[a]	$26.65	$93,162	$28.35
Total Program	245,302	$310,265	$ 1.26	$649,433	$ 2.64

[a]This amount includes the $30,960 WIC grant which is in the form of food vouchers and does not represent operating costs.

The 9 agencies who responded to the mailed survey did not provide any information in these areas. Thus, this discussion was based on the responses obtained during interviews with the four sponsoring agencies. The question was not considered applicable by the Board as they did not offer a community service program, but rather facilitated the operations of the other programs by providing the physical space and assuming the costs of keeping the building open after school hours. The Recreation Department responded that comparisons were impossible since the program could not be offered at any other facility.

The Department of Health and AHR did have these programs at other sites during the previous year (1976-77). The difference in cost of facility existed only for the Department of Health program in that they had rented space in a church for $4,500. AHR was provided a different location by the City of Atlantic City. Both agencies had the actual numbers of participants at their previous sites. AHR serviced 2000 participants at their former site as compared with 7,894 contacts at WSC. They almost quadrupled their outreach. The Department of Health serviced 516 children in the Pediatric clinic at the former site and more than twice as many (N=1,046) at WSC. In the Adult Clinic they reached 350 people formerly compared with 2,240 contacts including laboratory analyses at WSC, an increase of more than 600%.

AHR considered the greater number of contacts at WSC a function of the attractiveness and location of the facility. They reported being "able to get more participants from the general area, particularly Brigantine." The design of the Medical Suite at WSC was seen as a contributory factor for an increase in the number of participants by the Department of Health. The school building was viewed as the ideal location for a Pediatric Clinic since people

are accustomed to sending children to school and no imaginary barriers are created. Also, the services were being provided where the need existed.

SUMMARY AND CONCLUSIONS

The study was undertaken to answer specific questions regarding the financing, functioning and cost-benefits of the community service programs provided by WSC. To summarize these findings each question will be stated followed by the answer as revealed in the data.

Question 1. How much money did it cost to operate the WSC during FY 1977-78?

Answer 1. The total reported dollar expenditures were $310,265.

Question 2. What did each funding agency contribute?

Answer 2. Each funding agency contributed approximately one-third of the total expenditures:

Board of Education, $101,016 (33%);
City of Atlantic City, $107,222 (34%);
Atlantic Human Resources, $102,027 (33%)

Question 3. What were the sources of each agency's funding?

Answer 3. Specific amounts of money and funding source for each of the co-sponsoring agencies are found in Table 2, (page 11). The proportions of funds obtained from various sources were:

(1) Atlantic Human Resources,
14% Local, 76% Federal grants, 10% Medicaid Rebates;

(2) Recreation Department, City of Atlantic City,
68% Local, 32% Federal grants;

(3) Department of Health, City of Atlantic City,
62% Local, 38% Federal;

(4) Board of Education, Community Services Budget,
100% Local.

Question 4. What services did each agency provide?

Answer 4. (a) The Board of Education provided the facility utilities, supervisory staff and custodial staff for the after-school activities and the teacher for the school day swimming program.

(b) Atlantic Human Resources provided programs in a variety of areas: Social Work Services (counseling and referrals), Health and Dental Care, Youth Development (counseling and activities), Employment Counseling, Summer Day Camp, Community Action Council, Neighborhood Outreach, and Head Start.

(c) The Recreation Department provided programs in: Swimming, Roller Skating, Biddy Basketball, Gymnasium, Slimnastics and numerous other special activities i.e. Sunday Family Swim.

(d) The Department of Health provided: a Pediatric Clinic, an Adult Health Clinic, and Medical Laboratory diagnostic services.

Question 5. How many people were reached?

Answer 5. Table 1 (page 10) presents the reported annual participants for each of the programs. The total number of participant contacts reported was 278,926: 7,894 for AHR programs, 3,286 for Department of Health Programs, 234,122 for the Recreation Programs, and 33,624 for fund raising activities.

Question 6. How did the cost of providing these services at WSC compare with the costs of providing them elsewhere?

Answer 6. Of the four major users only the Department of Health reported renting a different facility the previous year for $4,500. The Recreation Department could not have offered their programs at a different site and AHR was provided with a facility by the Board of Education the previous year.

Question 7. Would community participation have been different were serves provided at a different location?

Answer 7. Yes! There was evidence of more than 300% greater community participation in the same service when provided at WSC than when provided at a different site the previous year.

AGENCY	NO. OF PARTICIPANTS	
	Previous Site	WSC
Atlantic Human Resources	2,000	7,894
Department of Health	866	3,286
	2,866	11,180

Question 8. Was the program cost-effective, or could these services have been provided elsewhere at a lesser cost to the same, or greater numbers of people?

Answer 8. This question attempted to determine whether this type of community school provided comprehensive community services at a lesser cost than could be provided elsewhere. Unfortunately, the necessary data were not available.

However, in an effort to discover the cost-benefits of a community school such as WSC, a supplemental study was conducted which compared the construction costs of a community school to the costs of constructing the same facilities as independent municipal units. It was found that a municipality could save more than $1.5 million dollars by including a swimming pool, library, health and dental clinic, and an auditorium in a school building for combined school-community use than to construct the same facility for the sole use of the community. (See Appendix C for "A Review of Municipal Cost Benefits in the Construction of a Community School.")

In conclusion, the data presented in this study, withstanding its limitations, provides strong evidence for the feasibility of the community school as a relatively economical approach to providing services to the community. The West Side Complex, as a case in point, has been found to be viable, vital, well-frequented resource for the community. It is a neighborhood center in every sense.

APPENDIX

A REVIEW OF MUNICIPAL COST BENEFITS IN THE CONSTRUCTION OF A COMMUNITY SCHOOL

BY

AUDREY HERR, PH.D.
OFFICE OF EVALUATION
DIVISION OF OPERATIONS, RESEARCH AND EVALUATION

This brief study was conducted to determine what, if any are the cost benefits to a municipality in constructing a community school which would provide facilities for community use, as compared with the construction costs for the same facilities as independent units. The facilities selected for this purpose were those already existing at some community schools (i.e., The West Side Complex in Atlantic City) which contribute to the health, recreation and general welfare of the community-at-large.

An expert in the construction of school facilities at the State Department of Education, Dr. Frank Johnson, was consulted regarding the minimum required sizes for each facility and the per foot construction costs. The accompanying table presents the estimated sizes and costs of facilities constructed for three different user conditions: (1) community use only, (2) school use only, and (3) combined use by school and community. The figures cited in Table I are all approximations derived by generally accepted procedures for the preliminary stages of planning.[1] A professional consultant team including architects, engineers, and builders would be needed to conduct an in-depth analysis of all the variables prior to accurately quoting the precise construction costs of the proposed facilities.

Despite these caveats the findings are striking and convincing. A municipality could save more than $1.5 million by including the identified community facilities in a school building.

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[1] Code for School Planning and Construction, State of New Jersey Department of Education, Division of Finance and Regulatory Services, Trenton, New Jersey, July, 1979.

TABLE 1

COMPARISONS OF COST ESTIMATES OF SELECTED FACILITIES WHEN CONSTRUCTED FOR INDEPENDENT AND COMBINED USE (COMMUNITY SCHOOL)

FACILITY	INDEPENDENT USE MUNICIPAL STRUCTURE[1]			INDEPENDENT USE SCHOOL STRUCTURE			COMBINED USE COMMUNITY SCHOOL			DOLLAR SAVINGS FOR COMBINED USE[2]
	SIZE	CONSTRUCTION		SIZE	CONSTRUCTION		SIZE	CONSTRUCTION		
	SQ. FT.[3]	PER SQ. FT.[3]	TOTAL	SQ. FT.[3]	PER SQ. FT.[3]	TOTAL	SQ. FT.[3]	PER SQ. FT.[3]	TOTAL	
Library	6,240	$50	362,000	6,240	$50	362,000	7,540	$50	377,000	347,000
Pool	6,000	70	420,000	6,000	70	420,000	6,000	70	420,000	420,000
Locker Room	5,000		350,000	5,000	70	350,000	5,000	70	350,000	350,000
All Purpose Room[2]	5,000	70	250,000	(INCLUDED AS NORMAL CONDITION IN A SCHOOL BUILDING)						250,000
Health and Dental Clinic	2,000	50	100,000	800	50	40,000	2,000	50	100,000	40,000
Theater (Auditorium)	9,200	50	460,000	3,500	50	175,000	9,200	50	460,000	175,000
TOTALS			$1,942,000			$1,347,000			$1,707,000	$1,582,000

[1]These costs do not include costs for purchase of site and loss of revenue.

[2]These amounts represent the differences between the combined costs of constructing two independent facilities and the construction costs of the facility as part of a community school.

[3]Size and cost estimates based on the Code for School Planning and Construction, State of New Jersey Department of Education, Division of Finance and Regulatory Services, Trenton, New Jersey, July, 1979.

All of the facility sizes in Table I were developed for an elementary school with 600 students. According to the Code[2] and the standards of the American Library Association, the library would have seating space for 120 students at any one time and stacks of 12,000 books. Additional public reading and stack space was provided to accommodate 25 community people during the school day in the combined use library. The independent libraries were each based on serving a population of 600 for comparative purposes.

Computations for the swimming pool included a 30' x 85' pool, the required side aprons (walks), and locker rooms. The combined use pool saves even more money than noted, in that there are extensive costs for plumbing, sewerage, and electricity for heating and air conditioning.

While there are financial savings in the combined use health and dental clinic, even without including the expensive equipment and staff necessary to provide a basic community health program, the most compelling fact in its favor is the increased use of the facility by the community when it is part of a community school, as in Atlantic City. People there are comfortable in the "Complex," and go there so frequently it does not require a special effort to avail themselves of these services.

The same principle applies to a local auditorium or theater. In addition to the sizable financial savings (not included the seats and audio equipment), the school becomes the focal point for community meetings and entertainment.

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[2] Op cit.

Overall, the savings to a municipality in constructing a community school with these facilities would probably surpass $2 million were site acquisition costs, lost revenue, equipment, plumbing and utility costs considered. Add to that most persuasive amount the other benefits of a decrease, if not virtual disappearance, of school vandalism. In Atlantic City, for example, the Board of Education spent approximately $20,000 on repairs due to broken windows, graffiti, etc., and of that amount about $300 of 1.5% was spent on the West Side Complex.

As an added incentive, a portion of Chapter 74 of the New Jersey Laws of 1978, The Additional State School Building Aid Act, was intended to fund these multi-use school/community facilities.

APPLYING COST/BENEFIT ANALYSIS TO COMMUNITY EDUCATION PROGRAMMING

Presented by

Dr. Marie Wilson

University of Maine at Farmington

This study is the topic of a presentation to:

THE AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

1981

ANNUAL MEETING IN LOS ANGELES, CA.

The study was made possible by a grant from the Charles Stewart Mott Foundation.

APPLYING COST/BENEFIT ANALYSIS TO COMMUNITY EDUCATION PROGRAMMING

(A Simulated Community Education Project)

To Be Addressed By

The River Valley Community Education Advisory Council

April, 1980

Topic: Formulation of a Community Arts Council and Program

Prepared by: Charles Lawton
Marie Wilson
David Fearon

Introduction to the Study

In the current climate of budgetary restraint, school boards and other community decision-making bodies are increasingly being forced to make judgments about the relative merit of various educational programs. Lack of money required that decision makers cut programs which all agree are good in an absolute sense but which may not be as important in a relative sense as other programs. Because of this fact, it is crucially important for such decision-making bodies to improve their abilities to compare programs, to evaluate diverse activities from some common standard of value. The purpose of this study is to meet that need in two ways: first, by illustrating a cost-benefit method for analyzing a community education project and second, by simulating the actual consideration of such a project by a community education decision-making body.

In this way, the project hopes to familiarize the decision-making body both with the cost benefit method in theory and with the problems of implementing it in practice.

On a broader scale, the project intends to contribute to ongoing research in the community education field. A research monograph will be prepared on the project, including participant evaluation of the cost-benefit method and the use fo the method. This monograph will be circulated among scholars involved in the community education field.

Instruction to River Valley Council Members

Prior to Council discussion: Please read the enclosed proposal. It represents our effort to describe a project consistent with the needs which you pointed out at the meeting we attended. If you have any questions, please jot them down and come prepared to discuss them. Remember, our essential

purpose is to illustrate a method for evaluating a project by comparing its costs to its benefits, so think particularly about the value of the benefits which we have estimated. Do you agree with those estimates? Why or why not?

Process for Council Discussion: At the April 3 meeting we will present the proposal as if we were coming to you with an actual request, and you are to discuss it and make a decision. During the course of the discussion we will note what parts of the method and presentation you appear to like, what parts you appear to dislike and which parts need clarification. After the discussions we will distribute an evaluation form asking you to comment on various aspects of the method. All of these sources of information will be used in preparing our report.

THE TRIANGLE COMMUNITY ARTS COUNCIL

Introduction

The River Valley Community Education Council is asked by its ad hoc Committee on Cultural Needs to consider this proposal to adopt as a major Council project for 1980-81 the developemnt of a new Community Arts Council. We have tentatively called it the "Triangle" Community Arts Council (TCAC) to connote the three-town region which is our targeted region. There is no single source of funds which we have identified to implement this project. We are convinced, however, that the River Valley Community Education Council (RVCEC) will see the many benefits which this initial cost of $10,895 will generate. In setting forth these benefits, the RVCEC can prepare a clear and compelling case for various funding sources at the local, state, possibly national level. We want to say this is an investment with a high yield for every dollar.

The Need

The three-town region has been studied by the River Valley Community Education Council over the past year in order to determine education, social and recreational needs of local residents which are not addressed adequately, or at all, by the few institutions based in this rural area. Among the needs deemed most critical in the Council's analysis was that of nearly total lack of opportunity for people to participate in cultural activities.

There are no theatres, galleries, museums, nor any continuously operating programs in the arts functioning in the area. The nearest facilities are miles away, a distance in the mindsof some people too far from the center of their home life to be relevant to them; and in the minds of virtually all people, too far to allow for regular participation in cultural events.

There is a population of 7,450 in 2,380 households who could, at all ages, ultimately benefit as consumers and providers of local cultural activities. Community action is needed to help people help themselves create a focal point to address these problems:

1. Some people in the communities need more opportunities to experience visual and performing arts.
2. Some people in the communities need more opportunities to display their artistic abilities and interests.
3. Some people in the communities need more opportunities to develop their artistic abilities and interests.

Ways of Meeting the Needs

There was an investigation of ways other Maine communities, and beyond, have met similar needs assisted by research in the Community Education Information/Referral System of the Maine Council for Community Education at the University of Maine at Farmington. One source identified in the process was the Maine Council on the Arts whose materials were carefully considered. Here, then, is our basic approach patterned after successful models of communities like Turner/Leeds/Greene:

1. To organize the Triangle Community Arts Council which will continue on a long-term basis as a program of artistic performance and instruction.
2. To conduct from July, 1980 to June, 1981, a series of Community Arts Festivals in which artists of the communities present displays and performances of their art to people in the communities.
3. To provide from September, 1980 to May, 1981, a series of courses of instruction to adults who wish to prepare in a variety of artistic fields.

The River Valley Council will serve as the initial sponsor of the Triangle Arts Council. The ad hoc task force will become its nucleus and seek additional

members from the communities. The intent is that the TCAC will become independent of the River Valley Council and self-sufficient by the end of the twelve-month period of this project. The River Valley Council will arrange for S.A.D. #52 to serve as fiscal agent for the project and to contribute some facilities and adult education services. The arts programs can include some in-school activities for the pupils of the district in exchange for their support.

The River Valley Community Education Council seeks funds to employ a part-time project director qualified in the organization and production of community arts and knowledgeable of the three-town community. This staff person to the new TCAC will assist in accomplishing these specific objectives and tasks:

I. A Community Arts Council will be organized throughout the project period to become independent by June, 1981.

Activities:

I.a Identify those in the community interested in the idea of a council and affiliate at least twelve.

I.b Contact similar organizations in other communities and explore organizational methods and program activities.

I.c Involve the technical assistance of Maine Commission on the Arts, Maine Council for Community Education and other resources.

I.d Establish a formal group to determine purposes, structure and financial operation, and schedule regular meetings to form and direct an agenda of artistic activities for the coming year.

I.e Evaluate the 1980-81 community events, assess community need, and determine how best continue coordinated arts activity in these communities.

II. The triangle Community Arts festival series will be conducted over the twelve months in locations throughout the district, featuring the following four types of pilot activities.

II.a Present two concerts by local musicians.

Since preparation of this event would involve only individual practice, it will be held early in the year as a festival opening. A second concert would be held as a culminating event. Each will be 2½ hours. Eight local musicians will perform at each concert.

II.b Prepare two sixty-minute video tapes of local performing artists at work.

Preparation of this event would involve one cameraman/technician and one assistant visiting ten local artists, filming them at their work or during their performances, interviewing them and preparing from this effort two sixty-minute video tapes. These tapes would be shown continuously by rotating in district schools during a Community Arts Week in March, 1981. In addition they would be shown to various community groups at their meetings an average of once per month for five months.

II.c Involve local artists in a Community-Arts-in-the-School week and with follow up activities.

This event would involve local artists preparing displays and activities for students. One artist would be selected for each of the elementary schools. Each would prepare activities for five days. Displays of the work of all local artists would be arranged at various places throughout the week. This will begin in late fall, 1980 and continue periodically throughout the year. All of these artists will return to display their works during the March Festival week.

II.d Produce a musical play.

This event would involve 15-10 local actors, 15-20 musicians and 15-20 support people. They would work an average of 4 hours per week rehearsing and performing over a three-month period. The play would be presented at the conclusion of Community Arts Festival Week in March 1981; twice for students and

II.e Conduct a Children's Summer Theatre.

This event would involve 3-5 local actor/directors and 20-25 local children. Throughout the summer they would prepare two plays and present five performances of each.

III. A series of instructional courses in the arts will be offered in the fall and spring Adult Education Program.

III.a Determine range of instructional interests in arts-related fields by analyzing existing learning needs data supplemented by a random telephone survey.

III.b Select and staff a minimum of four ten-week courses to be offered during the school year (two fall, two spring) and add them to the Adult Education curriculum.

III.c Operate courses in several community locations; evaluate and project next course needs.

Resources

Preliminary study of the need for this project yielded names of a remarkably diverse number ot talented people; almost all amateurs who reside in the three towns as homemakers, workers, professionals and artisans. This pool of potential talent which is considered to be the prime resource for building the TCAC and offering the pilot activities. Another critical human resource in community people who desire local arts and have the organizational abilities and/or community contacts to serve the task force. Other material and physical resources which there is no money to purchase or rent will be solicited from the several organizations which have offered tojoin the school system in support of this project. Finances requested of various funding sources will be restricted to meeting organizational costs and some unavoidable expenses. Once the benefits are well known and can be documented to the communities, it is anticipated that funds for continuation of the Arts Council will be gradually accumulated from sources which have a direct stake in the success of this cultural revival.

***

Cost Benefit Analysis

Cost. Costs of project are the dollar value of the resources required to implement the project. In this case the costs can be divided into two catagories - actual costs and imputed costs.

Actual costs are those for which cans expenditures must be made. These would include salaries actually paid and mateials purchaed.

Imputed costs are those for which no cash payment is made. These would include donated time and materials.

Benefits. Benefits are the dollar value of the project to those who enjoy it, who in a sense "consume" it. In a simple business transaction, the benefits

are equal to the price of the product times the number sold. Benefits can also be actual and imputed. An actual benefit would be represented by the value of tuition money paid by those attending a class. An imputed benefit would be represented by the tuition money people taking a free course would have had to pay were it not free. In the case of the artist in residence program benefits have to imputed to the students involved. This is done by calculating the averaye per-pupil instructional cost per day incurred by S.A.D. #52 and multiplying this value times the number of students involved and the number of days each artist is in residence. This figure represents what the students would have had to pay for the program were it not free.

Another peculiarity of this project is that certain of the imputed costs should also be treated as benefits. Since one of the original presuppositions of the project is that performers in the community need to perform, then the value of their performances should be included as a benefit of the project as well as a cost. The assumption of this project is that performing artists are not just donating time that they could otherwise use to earn actual income. Rather is is that performing artists don't have the opportunity to perform otherwise (at least not as much and not in their own community), and thus that they are in fact "consuming: their performance in much the same way as in their audience. In short, the actual benefits of the project are those gained by the audience and those gained by the performers.

Benefit-Cost Ratio. Ordinarily, economic theory would say that any project whose total benefits exceed its total costs should be undertaken. Thus, if the total benefits of the project described above exceed the total cost, it should be undertaken, and visa versa.

Project Activity	Actual Cost	Imputed Cost	Imputed Benefits (low)	Imputed Benefits (high)
A. TCAC overhead and promotion				
1. General Program Admin.				
Project Director (½ time) Salary and Fringe	6,000			
Secretarial Assistance (500 hrs. @ 3.50/fr.)	1,750			
Office Rental ($100.mo. donated)		1,200		
Office Supplies	150			
Phone ($15/mo. plus long dis.)	50	130		
Postage ($20/mo.)	240			
Travel 5000 mi. @ 18¢/mi. (Avg. 100 mi./wk)	900			
2. Video Tape Shows				
Camerman/technican 1 day/artist and 1 day edit 2 days/artist x 10 artists 160 hrs. @ $5/hr.	800		800	1,000
Assistant (volunteer) $3/hr. x 80 hrs.		240		
Rental of camera $25/day x 10 days		250		
Use of studio, tape deck etc. $25/day x 10 days		250		
Video tapes 5 @ $25/tape	125			
B. TCAC Events (1980-81)				
1. Concerts				
Musicians 8 musicians x 5 hr/music. x $5/hr. x 2 concerts		400	400	600
Auditorium rental (including set up/clean up) 2 performances @ $75/ea.		150		

	Actual Cost	Imputed Cost	Imputed Benefits (low)	Imputed Benefits (high)
TCAC Events (1980-81) cont.				
Publicity				
Signs	20	20		
Newspaper	120			
Labor (10 hrs. @ $3/hr.)		30		
Benefits (for free concerts)			750	1,050
75 customers/performance				
$5 customer				
2 performances				
2. Aritsts-in-Residence				
Artists (1 per school)				
5 schools x 6/hrs.day x 5 days = 150		1,750	1,750	2,625
40 hrs. prep. x 5 schools = 200 hrs. @ $3/hr.				
Assistants (1 per artist)				
5 x 30 hrs. @ $3/hr.		450		
Materials	500			
$100/artist				
3. Musical Play				
Musicians and actors				
30 people x 50 hrs. x $5/hr.		7,500	1,500	2,250
Support personnel				
15 people x 20 hrs. x $3/hr.				
Materials				
set (donated)				
Costumes (donated)				
Publicity				
Signs				
Newspaper				
Labor (20 hrs. x $3/hr.)				
Auditorium rental				
(5 perf. @ $75/ ea.)				
Benefits			1,200	1,600
400 stud. aud. x $3/ea.			4,500	4,800
200 adult aud. x $7.50/ea.				
4. Children's Summer Theater				
Actor/directors				
3 x 6 hr/wk/ x 10 wks. x $5/hr.		900	900	1,350

	Actual Cost	Imputed Cost	Imputed Benefits (low)	Imputed Benefits (high)
TCAC Events (1980-81) cont.				
Materials				
Publicity				
Benefits 10 perf. 25 customers/perf. $3/customer			750	1,250
5. Courses of Instruction				
Instructors 2 x regular adult ed. price $6/hr. x 20 hrs.	240			
Overhead (any extra costs of adding these courses to reg. prog.)		36		
Benefits (number enrolled x tuition 50 x $10			500	1,250
C. TOTAL	$10,895	$13,306	$13,050	$17,775

Ratio of Total Cost: Total Benefits (low) = 1.85: 1
Ratio of Total Cost: Total Benefits (high) = 1.36: 1

Ratio of Actual Cost: Total Benefits (low) = .83: 1
Ratio of Actual Cost: Total Benefits (high) = .61: 1

BIBLIOGRAPHY

Stenning, Walter F. and Berridge, Robert, Community Education in Texas: A Technical Report of Participants, Programs and Costs, 1978.

Watkins, Dennise A., Watkins, Julia M., Brown, Betty A. and Bissonette, Sheila R., Community Services Planning and The Small Municipality: A Quality of Life Framework for the Development of Rural Human Services, 1976.

Linthicum, Dorothy S., Economic Impact of Maryland Community Colleges, 1978.

Wood, George S., Jr. and Santellanes, David A., Evaluating A Community Education Program, 1973.

Liebertz, Skip and Hanson, Greg, Evaluation: The Key to Program Effectiveness, 1979.

Knight, Philip H., Financing Community Education, 1979.

Fish, Thomas L. and Klassen, James A., Financing Community Education, 1976.

Kaplan, Michael H. and Sponsler, Deborah S., Implementing Community Education Research: An Action Plan, Charlottesville, Va., 1978.

Kerensky, Vasil M. and Logsdon, James D., New Foundation: Perspectives on Community Education, 1979.

Burbach, Harold J. and Decker, Larry E., Planning and Assessment in Community Education, 1977.

Office of Community Education, January 1978

Cwik, Peter J., King, Marilyn J., Van Voorhees, Curtis, Community Education: Issues and Answers, The National Community Education Association, Vol. 2, No. 2, 1976.

Concerned Citizens Guide to Community School Centers, Educational Facilities Laboratories, N.Y., N. Y., 1978.

Evaluation of the Community Education Program: The Final Report, Community Education Advisory Council, Washington, D. C.

Evaluation Today in Community Education, Community Education Advisory Council, Washington, D. C.

Managing Community School Centers, Educational Facilities Laboratories, N.Y., N. Y., 1979

Planning Community School Centers, Educational Facilities Laboratories, N.Y., N. Y., 1978.

Policy Paper on Community Education, Massachusetts Board of Education, Boston, Mass.

Process Model for Community Education Development, Nevada State Board of Education, 1977.

Resource Book On Community School Centers, Educational Facilities Laboratories, N. Y., N. Y., 1979.

Cwik, Peter J., King, Marilyn J., VanVoorhees, Curtis, Selecting Effects of the Community on the School, The Office of Community Education Research in Cooperation with The National Community Education Association, 1976.

Using Surplus School Space for Community School Centers, Educational Facilities Laboratories, N. Y., N. Y., 1979.

COMMUNITY EDUCATION IN TEXAS:
A TECHNICAL REPORT OF
COSTS AND BENEFITS

by

WALTER F. STENNING

and

PEGGY COOPER-STENNING

FUNDED BY

ADULT AND COMMUNITY EDUCATION DIVISION

TEXAS EDUCATION AGENCY

PRESENTED AT

American Education Research Association
Los Angeles, California
April 17, 1981

ABSTRACT

During the 1977-78 school year (FY 78 school year) Texas A&M University conducted an evaluative study of Community Education in Texas. This study was sponsored and funded by the Texas Education Agency through the Adult and Community Education Division. The underlying purpose of this study was to determine the impact of Community Education in Texas with particular focus on the issues of participation and costs of Community Education as a programmatic effort through public school districts in Texas. In this study 57 school districts that had been funded as Pilot Programs through the Texas Education Agency and 25 additional identified school districts were used as the basis for gathering information. Participants, instructors, and administrators within these school districts were used to gather information in regard to types of programs being offered, degree of satisfaction of programs, and costs. In addition, eight school districts with well established Community Education Programs were studied in-depth by face-to-face interviewing and telephone interviewing techniques. Degree of satisfaction of the communities was measured in these eight school districts. Finally, a sample of superintendents throughout the State of Texas were surveyed in regard to their current knowledge, activity, and willingness to incorporate Community Education programs for the public into school districts of Texas.

INTRODUCTION

During the past decade, there has been a national movement to expand the role of the public schools of the United States from narrowly defined academic programs for school aged children to comprehensive programs for people of all ages. The State of Texas, through the State Board of Education and the Texas Education Agency, has been among the leaders of educational groups in establishing community oriented efforts within the public schools. The State Board of Education in Texas approved a statement of commitment to Community Education. To help implement Community Education in Texas, a series of pilot programs was established throughout the state. During the 1977-78 school year, there were 57 state funded pilot programs in Community Education in Texas.

The purpose of this study is to report on the impact of the Texas Community Education efforts on selected school districts and their associated communities. Further, this report aims at establishing the degree of interest and potential involvement for Community Education within school districts throughout Texas which were not funded as Community Education Pilot Sites.

Eight major issues were addressed in the evaluation of Community Education. These were:

1. Who participates in Community Education?
2. What types of programs are being offered in Community Education?
3. How many people participate in Community Education?

4. What are the costs of a Community Education Program?
5. What is the degree of satisfaction of participants with current Community Education programs?
6. In well established Community Education programs, what is the degree of awareness that Community Education exists?
7. In well established Community Education programs, what is the degree of support by the public for Community Education?
8. To what degree are superintendents who do not have pilot programs supportive of Community Education in their school districts?

A total of 33 basic questions were developed to provide detailed answers to the eight major issues of this evaluation.

MAJOR PURPOSE OF THE STUDY

As described in the introduction, the major purpose of this evaluation study was to determine the impact of Community Education on selected school systems in Texas. This study approached the determination of the impact of Community Education both by dealing with programmatic aspects such as the number of individuals involved in Community Education, the diversity of Community Education offerings, and with process, for example, the degree of community involvement in advisory groups, the type of participation, and reasons people participated in Community Education. Overall, this study aimed at providing the in-depth view of Community Education as a product and a process within the State of Texas.

RATIONALE OF THE STUDY

The rationale for this study was based on the underlying assumptions that individuals who can provide information about Community Education include participants in Community Education, instructors in Community Education programs, Community Education staff members, leaders of the community, and members of the community in general. It was further assumed that individuals contacted, whether in person, by telephone or by mail, would be honest and accurate in the information given. Based on these assumptions, a plan to gather accurate and generalizable information was developed by Texas A&M University in cooperation with the Division of Adult and Community Education at the Texas Education Agency. The underlying purpose of this study was to measure the current impact of Community Education in Texas, its costs, and its potential for the future.

FINDINGS IN REGARD TO FINANCES

22. What is the cost of Community Education programs in Texas?

Based on information from 52 pilot sites of Community Education in Texas, it was found that the net costs of Community Education in dollars were $275.50 per class/activity; $10.69 per participant; $.74 per contact hour. These amounts were further analyzed based on the size of school district. It should be noted that the net costs of Community Education were based on the calculation of all direct and indirect expenditures by all sources during the 1977-78 school year. After all sources were calculated, all tuitions and material fees collected were subtracted to develop an accurate picture of actual net costs of Community Education. It should be noted that these costs were not borne entirely by the school districts but rather were distributed over several sources. This point will be discussed in a future question in this study.

Table 22 reports the findings in regard to net costs.

Table 23 provides the gross costs of Community Education according to size of school district. One can view this table as answering the question, "What would be the costs of Community Education IF no tuition or material fees were collected?"

Table 24 depicts in dollar amounts the average amounts of tuition and material fees collected based on the size of the school district.

TABLE 22

NET COST OF COMMUNITY EDUCATION (IN DOLLARS) (1)

CATEGORIES	School District Size(2) Small N=19	Medium N=19	Large N=14	ALL N=52
Total Community Education Budget	$16,686.89	$31,843.47	$65,643.36	$35,405.46
Tuition and Fees Collected	3,936.36	14,570.15	12,106.65	10,021.48
Cost Per District Project	12,750.53	17,273.32	53,536.71	25,383.98
Cost Per Class/Activity	319.15	248.74	250.66	275.50
Cost Per Participant	11.51	10.25	10.14	10.69
Cost Per Contact Hour	1.04	.62	.49	.74

(1) Based on FY 78 School Year

(2) Small is less than 2,000 ADA.
Medium is 2,000 to 3,999 ADA.
Large is over 4,000 ADA.

TABLE 23

COSTS OF COMMUNITY EDUCATION IGNORING ANY INCOME ACCRUED IN TUITION OR FEES (1)

BUDGETED	Mean Per School District (2)			
	Small N=19	Medium N=19	Large N=14	ALL N=52
Per Project	$16,686.89	$31,843.47	$65,643.36	$35,405.46
Per Class/Activity	424.93	854.81	340.71	403.35
Per Participant	14.93	17.99	12.00	14.19
Per Contact Hour	1.08	.69	.63	.81

(1) Based on FY 78 School Year

(2) Small is less than 2,000 ADA.
Medium is 2,000 to 3,999 ADA.
Large is over 4,000 ADA.

TABLE 24

AMOUNT OF TUITION AND MATERIAL FEES COLLECTED (1)

AMOUNT COLLECTED	Mean Per School District Size(2) Small N=19	Medium N=19	Large N=14	ALL N=52
Per Project	$3,936.37	$14,570.16	$12,106.64	$10,021.48
Per Class/ Activity	105.78	606.64	90.05	127.85
Per Participant	3.42	7.74	1.86	3.50
Per Contact Hour	.04	.07	.14	.07

(1) Based on FY 78 School Year

(2) Small is less than 2,000 ADA.
Medium is 2,000 to 3,999 ADA.
Large is over 4,000 ADA.

23. What were the sources of funds in dollars and percentage amounts for Community Education?

Based on 52 pilot sites and dividing funding sources into hard funding, that is budgeted, and in-kind services, it was found that, as anticipated, the largest contribution of funds was made by the school district. This was found to be 46.9% of both hard and in-kind services. State grants contributed 13.9%; local governments--14.1%; federal monies--12.9%. Funding sources varied extensively based on the size of the school district.

Table 25 denotes the funding sources in dollar amounts. While Table 26 indicates funding sources by percentage.

TABLE 25

SOURCES OF FUNDING (HARD DOLLARS AND INKIND SERVICES) (1)

FUNDING SOURCES	Mean Per School District (2) Small N=19	Medium N=19	Large N=14	ALL N=52
HARD DOLLARS:				
School Budget	$7,927.53	$11,939.21	$21,838.39	$13,138.54
Local Government	612.16	2,314.89	12,941.57	4,553.77
State Grant	4,000.00	5,001.05	5,307.14	4,717.69
Federal Grant	---	6,951.16	7,370.14	4,524.12
Private Funds	36.84	1,205.26	4,869.00	1,764.73
Other	2,154.05	2,951.74	3,316.79	2,758.56
IN-KIND SERVICES:				
School Budget	1,663.68	902.26	9,436.50	3,478.15
Local Government	---	278.95	28.57	109.62
State Grant	261.05	25.26	422.86	218.46
Federal Grant	---	---	112.50	30.29
Private Funds	26.32	263.16	---	105.77
Other	5.26	10.53	---	5.77
TOTAL BUDGET	$16,686.89	$31,843.47	$65,643.36	$35,405.61

(1) Based on FY 78 School Year

(2) Small is less than 2,000 ADA.
Medium is 2,000 to 3,999 ADA.
Large is over 4,000 ADA.

TABLE 26

PERCENTAGE OF TOTAL COMMUNITY EDUCATION BUDGET (1)

FUNDING SOURCES	Mean Per School District (2) Small N=19	Medium N=19	Large N=19	ALL N=52
HARD FUNDING:				
School Budget	47.6%	37.5%	33.3%	37.11%
Local Government	3.7%	7.3%	19.7%	12.86%
State Grant	23.9%	15.7%	8.1%	13.32%
Federal Grant	---	21.8%	11.2%	12.78%
Private Funds	.2%	3.8%	7.4%	4.98%
Other	12.9%	9.3%	5.1%	7.79%
IN-KIND SERVICES:				
School Budget	9.9%	2.8%	14.4%	9.82%
Local Government	---	.87%	.04%	.31%
State Grant	1.6%	.08%	.60%	.62%
Federal Grant	---	---	.16%	.08%
Private Funds	.17%	.82%	---	.31%
Other	.03%	.03%	---	.02%
TOTAL	100%	100%	100%	100%

(1) Based on FY 78 School Year

(2) Small is less than 2,000 ADA.
Medium is 2,000 to 3,999 ADA.
Large is over 4,000 ADA.

24. What were the percentage costs for Community Education in regard to standard budgetary categories?

Based on 42 pilot sites and 9 non-pilot sites, it was found that Community Education averaged 66.1% of the budget for personnel; 16.7% for facility use and 5.9% for materials and supplies.

Table 27 details the average percentage costs of Community Education budgets.

TABLE 27

COST ANALYSIS OF COMMUNITY EDUCATION (1)

	PERCENT OF BUDGET (2)		
	Pilot N=42	Non-Pilot N=9	ALL SITES N=51
Facility Use:			
Office Space	4.09%	3.22%	3.85%
Classroom Use	6.45%	11.11%	8.10%
Special Room Use	2.57%	3.44%	2.65%
Phone Use	1.45%	5.33%	2.14%
Personnel	66.54%	65.89%	66.14%
Custodial Services	3.86%	1.33%	3.41%
Reproduction	3.38%	1.89%	3.12%
Travel Transportation	4.17%	2.44%	3.77%
Materials & Supplies	5.83%	4.56%	5.93%
Consultant Services	.14%	.33%	.18%
Other	1.67%	.22%	1.41%

(1) Based on FY 78 School Year

(2) From All Sources: Local, State, Federal, and Other Funds

25. What were the staffing costs in dollars for maintaining Community Education programs?

Based on 52 pilot sites, it was found that staffing costs per class/activity were $268.39; per participant--$9.44; per contact hour--$.54.

Table 28 provides a breakdown of staffing costs by school district size.

26. What were the utility costs in dollars for maintaining Community Education programs?

Based on 52 pilot sites, it was found that utility costs per class/activity were $47.66; per participant---$1.88; per contact hour--$.15.

Table 29 provides a breakdown of utility costs by school district size.

27. What were the custodial costs in dollars for maintaining Community Education programs?

Based on 52 pilot sites, it was found that custodial costs per class/activity were $19.06; per participant--$.76; per contact hour--$.06.

Table 30 provides a breakdown of custodial costs by school district size.

TABLE 28

COST OF STAFFING (IN DOLLARS) (1)

CATEGORIES	Mean Per School District Size(2) Small N=19	Medium N=19	Large N=14	ALL N=52
Cost Per Project	$11,103.46	$21,188.64	$43,679.69	$23,558.79
Cost Per Class/ Activity	282.74	568.79	226.71	268.39
Cost Per Participant	9.93	11.79	7.98	9.44
Cost Per Contact Hour	.72	.46	.42	.54

(1) Based on FY 78 School Year

(2) Small is less than 2,000 ADA.
Medium is 2,000 to 3,999 ADA.
Large is over 4,000 ADA.

TABLE 29

COST OF UTILITIES FOR COMMUNITY EDUCATION (IN DOLLARS) (1)

CATEGORIES	Mean Per School District Size (2) Small N=19	Medium N=19	Large N=14	ALL N=52
Cost Per Project	$1,742.00	$3,964.32	$8,852.43	$4,453.15
Cost Per Class/ Activity	48.31	54.91	37.45	47.66
Cost Per Participant	1.89	2.04	1.65	1.88
Cost Per Contact Hour	.14	.20	.10	.15

(1) Based on FY 78 School Year

(2) Small is less than 2,000 ADA.
Medium is 2,000 to 3,999 ADA.
Large is over 4,000 ADA.

TABLE 30

COST OF CUSTODIAL SERVICES FOR COMMUNITY EDUCATION (IN DOLLARS) (1)

CATEGORIES	Mean Per School District Size (2) Small N=19	Medium N=19	Large N=14	ALL N=52
Cost Per Project	$746.37	$950.26	$2,647.50	$1,332.71
Cost Per Class/ Activity	20.37	17.44	19.37	19.06
Cost Per Participant	.69	.68	.94	.76
Cost Per Contact Hour	.08	.05	.05	.06

(1) Based on FY 78 School Year

(2) Small is less than 2,000 ADA.
Medium is 2,000 to 3,999 ADA.
Large is over 4,000 ADA.

28. What were the proportional costs of operating a Community Education program as compared to the school district's operating budget?

Based on 51 pilot sites within Texas, it was found that the proportional costs of operating a Community Education program was seven tenths of one percent of the total school operating budget. If one anticipates, however, the proportional distribution of costs found in the State, the school district actually would contribute 46.4%. Therefore, it was found that the actual cost of the 51 pilot programs was less than four tenths of one percent of the total school budget.

Table 31 summarized this information based on the size of the school district.

TABLE 31

PROPORTIONAL NET COST OF COMMUNITY EDUCATION WITHIN THE SCHOOL'S OPERATING BUDGET (1)

CATEGORIES	Mean Per School District Size (2) Small N=19	Medium N=18	Large N=14	ALL N=51
School Budget	.672%	.231%	.150%	.373%
Local Government	.027%	.042%	.020%	.029%
State Grant	.337%	.097%	.050%	.174%
Federal Grant	---	.133%	.050%	.061%
Private Funds	.010%	.026%	.010%	.015%
Other	.076%	.053%	.010%	.050%
TOTAL	1.222%	.582%	.290%	.702%

(1) Based on FY 78 School Year

(2) Small is less than 2,000 ADA.
Medium is 2,000 to 3,999 ADA.
Large is over 4,000 ADA.

FINDINGS IN REGARD TO THE RELATIONSHIP OF AMOUNT OF MONEY SPENT ON COMMUNITY EDUCATION AND PROGRAM BENEFITS

29. Is there a relationship between the amount of federal, state, and local money spent and the number of participants in Community Education and the number of classes/activities held?

Based on data from 47 pilot sites and 10 non-pilot sites it was found that the total amount from any sources spent on Community Education was not related to the number of participants but was significantly related in both pilot and non-pilot sites to the number of activities. Stated directly, it was found that the amount spent did not influence the number of people participating but did influence the number of activities being offered. It was also found in the pilot sites that only the amount spent from local funds was significantly related to the number of participants. In the pilot sites the amount paid by participants was not related to the number of participants or the number of activities. There was, however, a significant negative relationship in the 10 non-pilot sites between the amount paid by the participants and the number of participants. This means, in the non-pilot sites, the higher the participant costs, the less participation occurred.

Tabel 32 summarizes these findings.

TABLE 32

CORRELATIONS (CORRECTED BY COMMUNITY SIZE) OF NUMBER OF PARTICIPANTS AND ACTIVITIES BY SELECTED COMMUNITY EDUCATION PROGRAM CHARACTERISTICS (1)

CATEGORIES	Number of Participants		Number of Activities Offered	
	Pilot N=47	Non-Pilot N=10	Pilot N=47	Non-Pilot N=10
FINANCIAL				
Total Expenditures	.17	.59	.45***	.84***
Amount of Federal Funds	.24	.86***	.51****	.16
Amount of State Funds	.30*	N/A	.62****	N/A
Amount of Local Funds	.48****	.34	.83****	.89***
Amount Paid By Participants	-.11	-.81***	-.06	-.54
STAFF				
Amount of Coordinator Training	.57****	.59	.55****	.53
Activity of Policy Making Group	-.09	-.41	-.13	-.64*
Coordination With Other Agencies	.31*	.84***	.46****	.13

(1) Based on FY 78 School Year

* Significant beyond .05 level

** Signigicant beyond .02 level

*** Significant beyond .01 level

**** Significant beyond .001 level